



142nd IPU ASSEMBLY AND RELATED MEETINGS

Geneva, 16–20 April 2020

Concept note

Preparing for the Paris Agreement era: Nature-based solutions to address the climate emergency

Climate change workshop

Monday, 20 April 2020

14:30-17:30, Room 18, level -1, CICG

Background

"Current climate change is human-made. Full stop. Without human activities we would not have climate change. The global picture is very clear", said Hans-Otto Pörtner, Co-Chair of Working Group II of the Intergovernmental Panel on Climate Change (IPCC) at the recent Parliamentary Meeting the IPU jointly organized with the Spanish Parliament on the margins of the 25th UN Climate Change Conference (COP) in Madrid, Spain.

Scientists agree that the year 2019 was the second warmest year on record, and the year 2020 has started out where 2019 left off. Since the 1980s each decade has been warmer than the previous one. In fact, we are heading towards a temperature increase of 3 to 5°C by the end of century. Moreover, the past year and decade have been characterized by retreating ice, record sea levels, increasing ocean heat and acidification, and extreme weather. These have combined to have major impacts on the health and well being of all of us, including our environment.

In light of this evidence, and with the Paris Agreement coming into effect this year, the time has come for parliaments to discuss how to contribute their share to an ambitious political response to the "climate emergency", in particular, how the ambition of countries' Nationally Determined Contributions (NDCs) under the Paris Agreement can be increased to ensure necessary emissions reductions.

The role of MPs in this respect is crucial. Current NDCs emission reductions need to be tripled to hold the increase in global average temperature below 2°C above pre-industrial levels, and they need to be increased around fivefold to hold the increase below 1.5°C. Trying to adhere to their pledges under the Paris Agreement, many countries are committed to do so and many have already started to revisit their original NDCs to demonstrate their enhanced ambition.

This workshop aims at providing guidance to parliaments, so they can effectively contribute to the revision of their national NDCs. The focus will be on familiarizing participants with so called nature-based solutions, which represent an easily accessible and affordable way for countries to meet their pledges made under the Paris Agreement. Incorporating them in countries' NDCs can contribute to improving livelihoods, reducing inequality, securing food and water, improving resilience, disaster risk reduction, and biodiversity conservation. Research shows that nature-based solutions could deliver more than one-third of the cost-effective climate mitigation that is needed by mid-century to keep warming below 2°C. So far, however, the significant potential of nature-based solutions has been under-utilized by most countries. Through their legislative, oversight and budgetary powers, parliaments have a key role in making change happen.

Objectives of the workshop

The overall objectives of this workshop are the following:

- To provide delegates with the latest science on climate change, thereby enhancing their ability to adequately respond to one of the greatest challenges the world is presently facing;
- To allow delegates to exchange with eminent climate scientists and other internationally renowned climate change experts, so they can gain a deeper understanding of the phenomenon of climate change;
- To assist delegates in their endeavours to contribute to their country's development of an ambitious new/revised NDC by familiarizing them with nature-based solutions as easy and cost-effective mitigation and adaptation options.

Workshop programme and format:

To set the scene, an eminent expert will present to participants some of the latest scientific assessments on climate change, including its implications, potential future risks, and viable adaptation and mitigation options.

Scientific introduction (10 mins; followed by Q&A):

Subsequently, thematic experts will introduce participants to four key nature-based solutions to combat climate change: (1) mountain areas; (2) marine and low-lying coastal areas; (3) drylands, deserts & oases; and (4) forests and grasslands respectively:¹

Expert presentations will be complemented by examples from parliaments that have engaged in the four thematic areas.

Afterwards, participants will break out into roundtables, further exploring the four themes. The roundtables will be moderated by the thematic experts and will allow parliamentarians to further engage in discussions on concrete issues and potential solutions.

The workshop will conclude with a plenary session, aimed at summarizing the main findings and at formulating recommendations and take-home messages for participants. The rapporteur of each roundtable will present the examples and strategies the group has identified with respect to the submission of countries' revised or new NDCs. Participants will have the opportunity for a final exchange of best practices and lessons learnt.

As seating will be limited, the IPU Secretariat kindly asks delegates interested in participating, to register for this workshop at their earliest convenience and no later than 15 April 2020, by sending an email to the IPU Secretariat (climate@ipu.org), if possible, also indicating their preferred roundtable.

¹ See the Annex for more detailed information on the topics of the 4 roundtables.

Annex – Information on the topics of the 4 roundtables:

(1) **Mountain areas** provide some of the world's most spectacular landscapes and host an amazing diversity of species and habitat types. They cover about a quarter of the Earth's land surface and are home to around 1.1 billion people. They are known as the "water towers of the world" because river basins with headwaters in the mountains supply freshwater to over half of humanity, including in the Himalaya-Hindu Kush and Tibetan Plateau region, known as the Third Pole. Some of the world's largest cities, including New York, Rio de Janeiro, Nairobi, Tokyo and Melbourne, are dependent on freshwater from mountains. Mountain areas are important in many ways. In addition to being essential to the Earth's water cycle, they help regulate the global climate.

Yet, climate change irreversibly affects mountain ecosystems and their biodiversity, reducing the area of biodiversity hotspots, causing species to go extinct, and compromising the capacity of mountains to provide key ecosystem services. Mountain areas warm faster than the global average and their remote communities are more vulnerable to climate change. They are far from services and political centers, have less political and economic influence and are less food secure. Healthy ecosystems, however, make remote communities more resilient to climate change, more food secure, and offer more livelihood options.

Whether we look at the Andes, the Himalaya, or the Mt. Elgon ecosystem in eastern Uganda and western Kenya, to name but a few examples, the overall objective of this roundtable is to increase participants' knowledge on climate change and appropriate adaptation solutions in mountain areas, leading to informed decision-making processes and legislation at the national, regional and global levels. Special emphasis will be given to raising the ambition of countries' NDCs, thereby increasing the resilience of mountain communities and ecosystems to climate change.

(2) The world's **oceans** are vast, covering an equivalent of approximately 72 per cent of the earth's surface. More than 600 million people live in **coastal areas** that are less than 10 meters above sea level and nearly 2.4 billion people live within 100 km of the coast. Oceans are essential for all aspects of human well-being and livelihood. They provide key services like climate regulation and are the home of biodiversity ranging from microbes to marine mammals. The warming ocean – due to carbon emissions from human activities – is affecting marine organisms and impacting fisheries with implications for food production and human communities. Since 2005 the ocean has warmed unabated, continuing the clear multi-decadal ocean warming trends documented by scientific assessments.

Oceans, coastal and marine resources are very important for people living in coastal communities. Coastal areas in particular possess a rich variety of ecosystems and habitats, providing a range of goods and services critical to human sustenance and well-being, particularly food production, raw materials, and transportation options. Moreover, they are among the planet's greatest carbon storehouses, with CO₂ burial rates – i.e., the rate at which carbon is converted into biomass – 20 times greater than any other terrestrial ecosystem, including boreal and tropical forests.

The problem is: Coastal areas are particularly sensitive to some of the key drivers related. They will increasingly experience adverse impacts such as submergence, coastal flooding, and coastal erosion due to relative sea level rise. Acidification and warming of coastal waters will continue with significant negative consequences for coastal ecosystems and, due to population growth, economic development, and urbanization, the number of people and assets exposed to coastal risks as well as human pressures on coastal ecosystems will increase significantly.

The good news is that the benefits of protecting against increased coastal flooding and land loss due to submergence and erosion at the global scale are larger than the social and economic costs of inaction. Thus, this roundtable aims at increasing participants' knowledge on climate change and appropriate adaptation solutions in coastal areas, leading to informed decision-making processes and legislation at the national, regional and global levels. Special emphasis will be given to raising the ambition of countries' NDCs by including specific mitigation and adaptation actions related to coastal and marine resources, thereby increasing the resilience of coastal zones, including its ecosystems, to climate change.

(3) **Drylands, deserts & oases** – In all, some 110 countries, most of the nations on Earth, are affected by desertification to some degree, causing food insecurity, famine and poverty. In 2015, about 500 million people lived within areas which experienced desertification between. The highest numbers of people affected are in South and East Asia, the circum Sahara region including North Africa, and the Middle East including the Arabian Peninsula.

Drylands are home to species and people that have developed unique strategies to cope with the climatic variability unique to this environment. Yet, people living in already degraded or desertified areas are increasingly negatively affected by climate change, which can exacerbate land degradation processes, including through increases in rainfall intensity, flooding, drought frequency and severity, heat stress, dry spells, wind, sea-level rise and wave action, and permafrost thaw. In drylands, climate change and desertification are projected to cause reductions in crop and livestock productivity, modify the plant species mix and reduce biodiversity.

Many activities for combating desertification can contribute to climate change adaptation with mitigation co-benefits, as well as to halting biodiversity loss with sustainable development co-benefits to society. Avoiding, reducing and reversing desertification would enhance soil fertility, increase carbon storage in soils and biomass, while benefitting agricultural productivity and food security.

If countries fully carry out their initial NDCs submitted in 2016, and if they prepare second-round NDCs with increased coverage, clarity and ambition, including specific actions related to drylands, deserts & oases, then land use change could turn global land from a net source of human greenhouse gas emissions during 1990-2010 to a net sink by the year 2030. In order to do so, this roundtable focuses on increasing participants' knowledge on climate change and appropriate adaptation solutions in degraded and desertified areas, leading to informed decision-making processes and legislation at the national, regional and global levels.

(4) **Forests and grasslands** – Forests are foundational pillars of land ecosystems, human sustenance, and cultures, and they play a lead role in the terrestrial component of the global climate system. Nearly 4 billion hectares of forest worldwide are constantly exchanging carbon with the atmosphere, with as much as 25% of annual carbon emissions absorbed by forests every year. Natural grasslands and pastures also provide important carbon sinks, as well as biodiversity and ecosystem services that are key to increasing resilience for agriculture.

Unfortunately, forests are constantly threatened both by deforestation as well as the impacts of climate change. Deforestation along with other anthropogenic land-use changes accounts for 13% of the global anthropogenic CO₂ emissions, becoming one of the major causes of global warming. Climate change can increase the frequency and intensity of droughts, flood events, pest outbreaks, and wildfires --all of which can have devastating consequences for forests, releasing their stored stocks of carbon and temporarily, or permanently, stalling their ability to sequester carbon from the atmosphere. Loss of forests is not only detrimental for the livelihood of people, but also for over half of all globally known terrestrial plant and animal species inhabiting these regions.

Proper forest and grassland protection and management are thus critical for climate action, and countries can do a great deal to protect, expand, manage, and restore forests to activate their potential, including forest-related activities in NDCs. So far, almost all of the initial NDCs countries submitted in 2016 recognize the impacts that the Land Use, Land Use Change and Forestry (LULUCF) sector has on climate change. Consequently, most countries refer to restoration, management and protection of natural forests and/or tree plantations as key land-based actions for mitigation purposes. 77% of NDCs reference current or planned efforts in the forest sector, 74% of the NDCs include forest-related targets, 55% of the NDCs include forests as part of economy-wide targets, and 71% of the NDCs include forests in adaptation plans.

However, not all NDCs mentioning forests include concrete targets. Hence, this roundtable wishes to increase participants' knowledge on climate change and appropriate mitigation and adaptation solutions for forests and grasslands, allowing parliaments to work together with their governments to strengthen efforts and cooperation to reduce emissions from deforestation and forest degradation by enhancing their NDCs through nature-based solutions, including scaled up sector-specific targets and goals to protect, restore and reaffirm the sustainable use of forests and grasslands, and to contribute

to improving livelihoods, reducing inequality, ensuring food and water security, strengthening resilience and enhancing biodiversity conservation.